Apache Longbow

UNITED STATES ARMY

MISSION
Conduct rear, close, and deep operations and deep precision strikes; provide armed reconnaissance and security when required in day, night, and adverse weather conditions.

DESCRIPTION AND SPECIFICATIONS
Apache Longbow is a development and acquisition program for a millimeter-wave radar air/ground targeting system capable of being used day, night, in adverse weather, and through battlefield obscurants. Longbow consists primarily of the integration of a mast-mounted millimeter-wave fire control radar (FCR), a radar frequency interferometer, and a radar frequency fire-and-forget HELLFIRE missile on the Apache. Longbow's digitized target acquisition system provides automated detection, location, classification, prioritization, and target handover.

The AH-64D cockpit is redesigned to digitize and multiplex all systems. MANPRINT crew stations have multi-function displays to reduce pilot workload and increase effectiveness. The modernized Apache heavy attack team will now be able to provide a truly "coordinated" rapid-fire capability (servicing 16 separate targets within one minute) to the maneuver force commander on a 24-hour basis in day, night, and adverse weather conditions.

Apache Longbow will add significant warfighting capability to the combined arms team through increased survivability, lethality, and versatility, as well as through long-term reliability improvements.

Combat Mission Speed: 167 MPH
Combat Range: 300 miles
Combat Endurance: 2.5 hours
Mission Weight: 16,600 lb
Armament: Hellfire missiles, 2.75" rockets and 30 mm chain gun
Crew: 2 (pilot and co-pilot gunner)

FOREIGN COUNTERPART
No known foreign counterpart

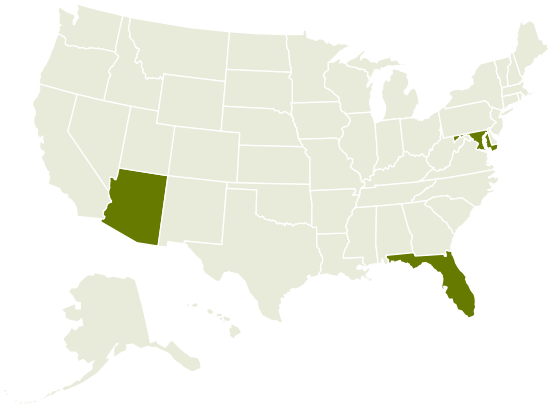
FOREIGN MILITARY SALES
The Netherlands, Singapore; commercial sale: United Kingdom.

PROGRAM STATUS
The Apache Longbow system completed full scale development and entered the production and deployment phase in October 1995. The first production model aircraft was delivered in March 1997. Technical successes during the proof-of-principle phase in 1990, initial operational test and evaluation, and the Army's Warfighting Experiment at the National Training Center in the spring of 1997, proved the AH-64D to be an operationally effective and suitable weapon system. As expected, Longbow Apache was far more effective in defeating threat armored vehicles and more survivable against threat air defense weapons than the AH-64A. The current program objective calls for the remanufacture of 530 AH-64A Apaches, of which 500 will be equipped with FCR and the upgraded T701C engine.
1QFY96 Completed full-scale development and began production and deployment.
2QFY97 Delivered first production model aircraft.
2QFY00 Completed multi-year II negotiations.

PROJECTED ACTIVITIES
FY00 Begin Second-Generation Forward-Looking Infrared (FLIR) development.

Continue Apache Longbow fielding.

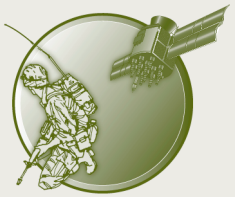
PRIME CONTRACTORS
Airframe: Boeing (Mesa, AZ)
Fire Control Radar: Lockheed Martin (Orlando, FL); Northrop Grumman (Linthincum, MD)

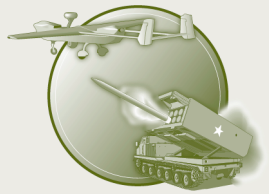


* See appendix for list of subcontractors

Project the Force

Protect the Force


Gain Information Dominance


Shape the Battlespace


Conduct Decisive Operations

Sustain the Force